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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 June 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3,4,12-14,16,19,20,23-25 and 27-29</u> is/are rejected.

7)☒ Claim(s) <u>2,5-11,15,17,18,21,22 and 26</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 June 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

    1.☒ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/20/2006</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27 and 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to "*A program*", which is considerable non-statutory subject matter.

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. In contrast, a claimed computer readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of computer which permit the computer program's functionality to be realized, and is thus statutory.

See pages 52-53 of USPTO "*Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*".

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 12 recites the limitation "*wherein after receiving the trigger packet, <u>said</u>*

<u>*second communication relay apparatus is operable to repeatedly transmit*</u> *one or more*

acquisition request packets <u>to said second communication relay apparatus</u>, each of the

acquisition requests....."

The above underlined limitation is not clear, since it does not make sense that a

communication relay apparatus is operable to repeatedly transmit acquisition requests

to itself.

Claims 13 and 14 depend from claim 12, and thus are rejected on the same

basis of rejection to claim 12.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4 and 23-25 and 27-29 are rejected under 35 U.S.C. 102(b) as being

anticipated by US Patent Application Pub. No. 2003/0018753 by Seki.

Regarding claim 1, Seki teaches a communication network system **[Fig. 1;**

Network System 1] comprising a first system **[Fig. 1; Manufacturer Area 15]** and a

second system **[Fig. 1; Home-network Apparatus 6]** which are connected via a global

network **[Fig. 1; Internet 11]**,

wherein said first system **[Fig. 1; Manufacturer Area 15]** includes:

a terminal apparatus operable to communicate with a device **[Fig. 1; Remote**

Terminal 12 is operable to communicate a Home-network Apparatus 6; para.

0108]; and

a first communication relay apparatus **[Fig. 1; Proxy Server 14 and/or Router**

17], which is connected to said terminal apparatus **[Fig. 1; Remote Terminal 12**

connects to Proxy Server 14/Router 17 via Internet 11], operable to relay

communication between said terminal apparatus and said second system via said

global network **[Figs. 1 & 2; Proxy Server 14 relays a control request to Home-**

network Area 2 via Internet 111; para. 0109],

said second system **[Fig. 1; Home-network Apparatus 6]** includes:

a router apparatus **[Fig. 1; Gateway/Router 10]** operable to connect said global

network **[Fig. 1; Internet 11]** with a local network **[Fig. 1; e.g. Home Network 2 / IEEE**

1394];

the device which is connected to said local network and is communicated with

said terminal apparatus **[Fig. 1; Remote Terminal 12 is operable to communicate a**

Home-network Apparatus 6; para. 0108]; and

a second communication relay apparatus **[Fig. 1; Gateway 10 is a relay apparatus; para. 0107]** operable to relay communication between said device and said first system via said router apparatus and said global network, said second communication relay apparatus being connected to said local network **[Figs. 1 & 3; Gateway/Router 10 connects to receive IEEE 1394 packets from Home-Network Apparatus 6 and forward the packets in TCP/IP to Manufacturer Area 5 via Internet 11; para. 0107, 0118]**,

said first communication relay apparatus **[Figs. 1-2; Proxy Server 14/Router 17]** has:

a first communication unit operable to communicate with said terminal apparatus using a first protocol **[Fig. 1 & 2; Proxy Server 14 (Apparatus Control Executing 21 and/or Command TX/RX Control 22) receives a control request, that can be interpreted by a home-network apparatus 6 (e.g. using IEEE 1304), from a Remote Terminal 12; para. 0110-0111]**;

a second communication unit operable to communicate with said second system using a second protocol via said global network888 **[Figs. 1 & 2; Proxy Server 14 (Command TX/RX Control 22) assembles and communicates a control command into IEEE1394 applied to Home-network Apparatus 6 via Internet 11; para. 0109, 0111]**; and

a first conversion unit operable to convert packet data into second protocol packet data as a converted packet, the packet data being acquired from said terminal apparatus by said first communication unit, and to transmit the converted packet to said

second communication unit **[Figs. 1-2; ; Proxy Server 14 converts/assembles a**

control command received from Remote Terminal 12 in TCP/IP into a protocol,

e.g. IEEE1394, applied to Home-network Apparatus 6; para. 0111, 0160-0162], and

also operable to convert packet data into first protocol packet data, the packet data

being acquired from said second system by said second communication unit, and to

transmit the first protocol packet data to said first communication unit **[Figs. 1-4A/4B,**

ST440-ST446; para. 0164],

said second communication relay apparatus **[Fig. 1; Gateway 10]** has:

a third communication unit **[Figs. 1 & 3; Gateway 10 LAN I/F 38]** operable to

communicate with the device using the first protocol via the local network **[Fig. 1;**

Gateway 10 LAN I/F 38 communicates with Home-Network Apparatus 6 using

IEEE 1394; para. 0105-0107];

a fourth communication unit **[Figs. 1 & 3; Gateway 10 WAN I/F 37]** operable to

communicate with said first system using the second protocol **[Fig. 1; Gateway 10**

WAN I/F 37 communicates with Manufacturer Area 5 using TCP/IP; para. 0107,

0109, 0113]; and

a second conversion unit **[Figs. 1 & 3; Gateway 10 Between Protocol 34; para.**

0118] operable to convert packet data into second protocol packet data, the packet data

being acquired from the device by said third communication unit, and to transmit the

second protocol packet data to said fourth communication unit **[Fig. 1; e.g. Gateway 10**

Between Protocol 34 converts IEEE 1394 packet received from Home-Network

Apparatus 6 into TCP/IP packet and forward to Gateway 10 (transmitting part);

para. 0107, 0118], and also operable to convert the converted packet into first protocol

packet data, the converted packet being acquired from said first system by said fourth

communication unit, and to transmit the first protocol packet data to said third

communication unit **[Figs. 1, 3 & 4; e.g. Gateway 10 Between Protocol 34 converts**

the command request in TCP/IP received from Gateway 10 WAN I/F 37 into IEEE

1394 and forwards the command request in IEEE 1394 to Gateway 10 LAN I/F 38;

para. 0107, 0118, 0152, 0154], and

said second communication relay apparatus is operable to transmit a

predetermined packet to said first system via said router apparatus **[Figs. 1 & 4; e.g.**

Gateway/router 10 exchanges messages with Proxy Server 14 (e.g. Fig. 4B,

ST432-ST443); para. 0107], and

said first system is operable to transmit the converted packet to an address of a

transmission source of the predetermined packet **[Figs. 1-2; ; Proxy Server 14**

converts/assembles a control command received from Remote Terminal 12 in

TCP/IP into a protocol, e.g. IEEE1394, applied to Home-network Apparatus 6;

para. 0111, 0160-0162].

Regarding claim 3, Seki teaches said second communication relay apparatus

further has a device ID acquisition unit operable to acquire, from the device, a device ID

for identifying the device, and to store the acquired device ID with an address of the

device in the local network so that the device ID and the address are associated with

each other **[Figs. 1, 3 & 4A/B; para. 0129-0130, 0149, 0168]**, and

after receiving the converted packet, said second communication relay apparatus is operable to convert the received converted packet into first protocol packet data **Figs. 1, 3 & 4; e.g. Gateway 10 Between Protocol 34 converts the command request in TCP/IP received from Gateway 10 WAN I/F 37 into IEEE 1394; para. 0107, 0118, 0152, 0154]**, based on the device ID included in the converted packet and the association stored in said device ID acquisition unit **[Fig. 1, 3 & 4; associated the apparatus identifier with apparatus information; para. 0168]**, and to transmit the first protocol packet data as a request packet to the device **[Figs. 1, 3 & 4; forwards the command request in IEEE 1394 to Home-network apparatus via Gateway 10 LAN I/F 38; para. 0107, 0118, 0152, 0154]**.

Regarding claim 4, Seki teaches after receiving the packet data using the first protocol, the device is operable to transmit a response packet to said second communication relay apparatus using the first protocol, the response packet indicating the response **[Fig. 4B, ST436-440; para. 0163-0164]**,

after receiving the response packet, said second communication relay apparatus is operable to transmit the received response packet to said first communication relay apparatus using the second protocol **[Fig. 4B, ST441-443; para. 0164]**, and

after receiving the response packet, said first communication relay apparatus is operable to convert the received response packet into first protocol packet data, and to transfer the first protocol packet data to said terminal apparatus **[Fig. 4B, ST444-446; para. 0164]**

Regarding claim 23, Seki teaches said second system further includes an

actuator connected to the device, the converted packet includes information for

controlling said actuator **[Figs. 4A/B, 6 & 10; e.g. TURN ON or TURN OFF the**

apparatus; para. 0136-0137, 0166-0167],

after receiving the converted packet, said second communication relay apparatus

is operable to convert the received converted packet into first protocol packet data, and

also to transfer the first protocol packet data as a request packet to the device **[Figs. 1,**

3 & 4; e.g. Gateway 10 Between Protocol 34 converts the command request in

TCP/IP received from Proxy Server 14 into IEEE 1394 and transmits the command

request in IEEE 1394 to Home-network Apparatus 6; para. 0107, 0118, 0152, 0154],

and the device is operable to transmit the information for controlling said actuator to

said actuator, the information being included in the request packet **[Figs. 4A/B, 6 & 10;**

e.g. TURN ON or TURN OFF the apparatus; para. 0136-0137, 0166-0167].

Regarding claim 24, Seki teaches a communication method for a terminal

apparatus **[Fig. 1; Remote Terminal 12]** connected to a first system **[Fig. 1; via**

Internet 11 (or directly connects to/resides in) to Manufacturer Area 15] and a

device **[Fig. 1; Home-network Apparatus 6]** connected to a second system **[Fig. 1;**

Home-network Area 2] in a communication network system **[Fig. 1; Network System**

1],

wherein the system has a first system and a second system which are connected via a global network **[Fig. 1; Internet 11]**, and

said first system **[Fig. 1; Manufacturer Area 15]** includes: a first communication relay apparatus **[Fig. 1; Proxy Server 14 and/or Router 17]** operable to relay communication between said terminal apparatus and said second system via said global network **[Figs. 1 & 2; Proxy Server 14 relays a control request to Home-network Area 2 via Internet 11; para. 0109]**, said first communication relay apparatus being connected to said terminal apparatus **[Fig. 1; Remote Terminal 12 connects to Proxy Server 14/Router 17 via Internet 11]**,

said second system **[Fig. 1; Home-network Area 2]** includes: a router apparatus **[Fig. 1; Gateway/Router 10]** operable to connect said global network **[Fig. 1; Internet 11]** with a local network **[Fig. 1; e.g. Home Network 2 / IEEE 1394]**; and a second communication relay apparatus **[Fig. 1; Gateway 10 is a relay apparatus; para. 0107]** operable to relay communication between said device and said first system via said router apparatus and said global network **[Fig. 1; Gateway 10 relays messages between Home-network Apparatus 6 to Manufacturer Area 5 via Internet 11; para. 0107]**, said second communication relay apparatus being connected to said local network **[Fig. 1; Gateway 10 is connected to Home Network 2 / IEEE 1394]**,

said communication method comprising steps where:

said second communication relay apparatus **[Fig. 1; Gateway 10 is a relay apparatus; para. 0107]** is operable to transmit a predetermined packet to said first

system via the router apparatus **[Figs. 1 & 4; e.g. Gateway/router 10 exchanges messages with Proxy Server 14 (e.g. Fig. 4B, ST432-ST443); para. 0107]**;

said first communication relay apparatus **[Figs. 1-2; Proxy Server 14/Router 17]** is operable to convert the packet into a second protocol packet as a converted packet **[Figs. 1-2; e.g. converts/assembles a control command into IEEE1394 applied to Home-network Apparatus 6; para. 0111]**, the packet being acquired from said terminal apparatus using the first protocol, and to transmit the converted packet to an address of the transmission source of the predetermined packet transmitted from said second communication relay apparatus **[Figs. 1-2; ; Proxy Server 14 converts/assembles a control command received from Remote Terminal 12 in TCP/IP into a protocol, e.g. IEEE1394, applied to Home-network Apparatus 6; para. 0111, 0160-0162]**; and

said second communication relay apparatus **[Fig. 1; Gateway 10 is a relay apparatus; para. 0107]** is operable to receive the converted packet transmitted from said first communication relay apparatus, to convert the received converted packet into first protocol packet data, and to transfer the converted packet data to the device **[Figs. 1, 3 & 4; e.g. Gateway 10 Between Protocol 34 converts the command request in TCP/IP received from Proxy Server 14 into IEEE 1394 and transmits the command request in IEEE 1394 to Home-network Apparatus 6; para. 0107, 0118, 0152, 0154]**.

Regarding claims 25 and 27, Yamanak teaches a first communication relay apparatus which relays communication between a terminal apparatus and a second

system via a global network, the first communication relay apparatus **[Figs. 1, 3 & 7;**

Agent Relaying Device 13/14] comprising:

a first communication unit operable to communicate with said terminal apparatus

using a first protocol **[Figs. 1, 3 & 7; Receiving/Transmit Module 31/38**

communicates with Client 4 using an application (first) protocol];

a second communication unit operable to communicate with said second system

using a second protocol via said global network **[Figs. 1, 3 & 7;**

Transmitting/Receiving Module 34/41 communicates with Server 3 via a network

using an agent (second) protocol; para. 0133]; and

a first conversion unit operable to convert packet data into second protocol

packet data as a converted packet **[Figs. 1, 3 & 7; Protocol Converting Module 32**

converts the application protocol packet into the agent protocol packet; para.

0131], the packet data being acquired from said terminal apparatus by said first

communication unit **[Figs. 1, 3 & 7; the application protocol packet is received by**

Receiving Module 31], and to transmit the converted packet to said second

communication unit **[Figs. 1, 3 & 7; the agent protocol packet is transmitted to**

Transmitting Module 34], and operable to convert packet data into first protocol packet

data **[Figs. 1, 3 & 7; Protocol Converting Module 39 converts the agent protocol**

packet into the application protocol packet; para. 0136], the packet data being

acquired from said second system by said second communication unit **[Figs. 1, 3 & 7;**

the agent protocol packet is received by Receiving Module 41], and to transmit the

first protocol packet data to said first communication unit **[Figs. 1, 3 & 7; the**

application protocol packet is transmitted to Transmitting Module 38; para. 0140].

Regarding claims 28 and 29, Seki teaches a second communication relay

apparatus **[Fig. 1; Gateway 10]** which is connected to a local network **[Fig. 1; Home-**

network Area 2] and relays communication between a device **[Fig. 1; Home-network**

Apparatus 6] and a first system **[Fig. 1; Manufacturer Area 15]** via a router apparatus

[Fig. 1; Gateway 10 as a router or Router 17] and a global network **[Fig. 1; Internet**

11], the second communication relay apparatus **[Fig. 1; Gateway 10]** comprising:

a third communication unit **[Figs. 1 & 3; Gateway 10 LAN I/F 38]** operable to

communicate with the device using a first protocol via the local network **[Fig. 1;**

Gateway 10 LAN I/F 38 communicates with Home-Network Apparatus 6 using

IEEE 1394; para. 0105-0107];

a fourth communication unit **[Figs. 1 & 3; Gateway 10 WAN I/F 37]** operable to

communicate with said first system using a second protocol **[Fig. 1; Gateway 10 WAN**

I/F 37 communicates with Manufacturer Area 5 using TCP/IP; para. 0107, 0109,

0113]; and

a second conversion unit **[Figs. 1 & 3; Gateway 10 Between Protocol 34; para.**

0118] operable to convert packet data into second protocol packet data, the packet data

being acquired from the device by said third communication unit, and to transmit the

second protocol packet data to said fourth communication unit **[Fig. 1; e.g. Gateway 10**

Between Protocol 34 converts IEEE 1394 packet received from Home-Network

Apparatus 6 into TCP/IP packet and forward to Gateway 10 (transmitting part);

para. 0107, 0118], and operable to convert a converted packet into first protocol packet

data, the converted packet being converted into second protocol packet data and

acquired from said first system by said fourth communication unit, and to transmit the

first protocol packet data to said third communication unit **[Figs. 1, 3 & 4; e.g. Gateway**

10 Between Protocol 34 converts the command request in TCP/IP received from

Gateway 10 WAN I/F 37 into IEEE 1394 and forwards the command request in

IEEE 1394 to Gateway 10 LAN I/F 38; para. 0107, 0118, 0152, 0154],

said fourth communication unit is operable to transmit a predetermined packet to

said first system via the router apparatus **[Figs. 1 & 3; Gateway 10 WAN I/F 37 is**

operable to transmit a packet to Manufacturer Area 15 via Gateway/router 10 or

Router 17; para. 0107], and to receive the converted packet transmitted from the first

system to an address of the transmission source of the predetermined packet **[Figs. 1 &**

3; Gateway 10 WAN I/F 37 is operable to receive a packet from Proxy Server 14 in

Manufacturer Area 15 via Router 17; para.0107].

Claim Rejections - 35 USC § 103

4.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 16, 19, and 20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent Application Pub. No. 2003/0018753 by Seki.

Regarding claims 16 and 19, Seki does teaches not teach the communication

network system wherein said first protocol is Simple Network Management Protocol

(SMNP), and wherein the second protocol is Hypertext Transfer Protocol (HTTP) or

Hypertext Transfer Protocol Security (HTTPS).

However, it would have been obvious to a person of ordinary skill in the art at the

time of the invention was made to recognize that which protocol, or protocols, should be

adopted for remotely controlling controlled apparatus on a home network from an

external network depending on the end device or end user application (e.g. IEEE 1394

for IEEE 1394 compliant apparatus, or ECHONET for ECHONET-compliant apparatus,

etc.) Using SNMP and HTTP as the first and the second protocols, therefore, does not

depart from the scope of Seki's invention.

Regarding claim 20, Seki does not expressly teach the communication network

system, wherein the device includes the second communication relay apparatus.

However, it would have been obvious to a person of ordinary skill in the art at the

time of the invention was made to recognize that a home-network appliance having a

relaying function is only a design choice, and, therefore, it does not depart from the

scope of Seki's invention.

Allowable Subject Matter

5.   Claims 2, 5-11, 15, 17, 18, 21, 22 and 26 are objected to as being dependent

upon a rejected base claim, but would be allowable if rewritten in independent form

including all of the limitations of the base claim and any intervening claims.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Albert T. Chou whose telephone number is 571-272-

6045. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi H. Pham, can be reached on 571-272-3179. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Albert T Chou/

Examiner, Art Unit 2416

January 28, 2009